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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,759	09/17/2003	Tomoya Ohsugi	242554US3	3825
22850	7590	09/14/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			PHAM, HAI CHI	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 09/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,759

Applicant(s)

OHSUGI, TOMOYA

Examiner

Hai C. Pham

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-15, 18-24 and 28-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 5, 9, 14, 15, 18-24, 28, 29, 33, 34, 38, 39 and 42-46 is/are allowed.
- 6) ☒ Claim(s) 6-8, 11, 12, 30-32, 35, 36, 40, 41, 47 and 48 is/are rejected.
- 7) ☒ Claim(s) 10, 13 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 11 is objected to because of the following informalities:

- Line 13, "holding face" should read --holding faces--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6-8, 30-32, 40-41, 47/40-41 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al. (US 6,621,512) in view of Iwanaga (JP 8-7294).

Nakajima et al. discloses in Fig. 9 a multi-beam scanning apparatus having a multi-beam light source device, which comprises a plurality of light sources (at least the pair of semiconductor lasers 101 and 102), a plurality of coupling lenses (respective coupling lenses 104 and 115) each corresponding to a light source of said plurality of light sources, a coupling lens holding unit (projecting portion 112 holding the pair of coupling lenses 104 and 115) having the curved faces aligned in parallel to the optical axis of the pair of coupling lenses.

With regard to claims 6 and 30, Nakajima teaches a supporting unit (projecting portion 112) is formed, as one set, consisting of said lens holding unit with the curved faces aligned approximately in parallel to said optical axis of said pair of coupling lenses, and at least two sets of said supporting unit are formed integrally as one component (the lens holding unit holding the pair of coupling lenses is shown as a one component in the form of the projecting portion 112).

With regard to claims 7 and 31, Nakajima teaches a supporting unit (projecting portion 112) is formed, as one set, consisting of said lens holding unit with the curved faces aligned approximately in parallel to said optical axis of said pair of coupling lenses, and at least two sets of said supporting unit are arranged such that a direction of said at least two sets, in terms of a direction of said optical axis, a primary scanning direction and a secondary scanning direction, is identical to each other (the lens holding unit holding the pair of coupling lenses is shown as a one component in the form of the projecting portion 112 whose direction is parallel to the optical axis of the respective coupling lenses and is identical to each other with regard to the optical axis, the main and sub-scanning directions).

With regard to claims 8 and 32, Nakajima teaches a supporting unit (supporting member 110) is formed, as one set, consisting of said lens holding unit with the curved faces aligned approximately in parallel to said optical axis of said pair of coupling lenses, and at least two sets of said supporting unit are arranged such that a direction of said at least two sets, in terms of a direction of said optical axis, a primary scanning direction and a secondary scanning direction, is symmetrical to each other (the lens

holding unit holding the pair of coupling lenses is shown as a one component in the form of the projecting portion 112 whose direction is parallel to the optical axis of the respective coupling lenses and is symmetrical to each other with regard to the optical axis, the main and sub-scanning directions).

With regard to claim 40, Nakajima also teaches in Fig. 5 a light deflecting means (polygon mirror 42) for receiving and subsequently deflecting the light beams emanated from the light sources, and an optics system means (scanning lenses 43) for focusing the light beams onto a means to be scanned (photosensitive drum 46) and scanning along a primary scanning direction.

However, Nakajima et al. fails to teach the coupling lens holding unit or the projecting portion (112) having a first and a second holding faces and a pressing member pressing a side portion of each of the pair of coupling lenses against said first and said second holding faces so as to thereby hold each of the pair of coupling lenses.

However, Iwanaga, an acknowledged prior art, discloses an L-shaped lens holder (11) (Fig. 1) for holding the coupling lens (collimator lens 2) whose side portion is abutted on the L-shaped abutting surfaces of the lens holder by pressing the elastic member (3) against the coupling lens (Abstract) (see also Fig. 2).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the second lens support member as an elastic member to directly press-fit the coupling lens against the lens holder in the device of Nakajima as taught by Iwanaga. The motivation for doing so would have been to provide a flexible affixing means for retaining the collimator lens in place in the

collimator lens mount while providing an easy way to adjust the focusing of the coupling lens as suggested by Iwanaga.

With regard to claims 41 and 47-48, Nakajima teaches the plural light sources being arranged in a row, a toner cartridge (904) and developing roller (903) for rendering the image visible.

4. Claims 11-12, 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima in view Fujii et al. (JP 11-86296).

Nakajima discloses all the basic limitations of the claimed invention except for the coupling lens holding unit or the projecting portion (112) having a first and a second holding faces and the elastically pressing member pressing a side portion of each of the pair of coupling lenses against said first and said second holding faces so as to thereby hold each of the pair of coupling lenses, the elastically pressing member being formed of planar elastic material and whose ends are fixed approximately symmetric with respect to the coupling lens.

Fujii et al. discloses a device (27) for holding a lens frame (10) comprising a supporting body (12) for supporting the lens frame, the supporting body having a first and a second flat surfaces in contact with the lens frame, and a pressing member (22) comprising a flat elastic pressing piece (24) fixed at both ends to the supporting body by screws approximately symmetric with respect to the lens frame (23 and 26) (Figs. 8-9).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the device of Nakajima with the lens holding

member having a first and second holding faces and an elastic pressing member as taught by Fujii et al. for the purpose of firmly fixing the lens to its supporting member while preventing any shifting position of the lens as suggested by Fujii et al.

Allowable Subject Matter

5. Claims 4-5, 9, 14-15, 18-24, 28-29, 33-34, 38-39 and 42-46 are allowed.
6. Claims 10, 13 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 6-8, 11-12, 30-32, 35-36, 40-41, 47/40-41 and 48 have been considered but are moot in view of the new grounds of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on (571) 272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2861

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



HAI PHAM
PRIMARY EXAMINER
September 8, 2006